Task ID# 1568

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September 29, 2006

Ms. Susan M. White
Minerals Regulatory Program Coordinator
Utah Division of Oil Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Re: Response to Division Letter and Comments of July 26, 2006, Submittal of Reclamation Cost Estimate, and Submittal of Substitute Text Pages, Brush Resources, Inc., Topaz Mine, Juab County, Utah; M/023/003

Dear Ms. White:

I am submitting this information on behalf of BRI. Accompanying this letter are the following that respond to the Division's information requests under its R647-4-110.2 and 110.5 comments:

- Appendix 6, Slopes of Existing Open Pit Highwalls, inadvertently left out of our previous submittal;
- Corrections to two text pages (pp. 44 and 79) that inadvertently used the term "Figure" instead of "Plate" when referring to Plates 6A to 10;
- Revised language in section 7.13 (p. 75) to address the Division comment regarding revegetation success.

BRI presumes, based on comments in the July 26 letter, that the Division has approved all variance requests, which include:

- Variance from any reclamation of the existing Blue Chalk North, Blue Chalk South, and Section 16 North No. 1 open pits, as described in Section 9.1 of the MRP changes submitted in April 2006 (see attached copy of page 82 – text highlighted for emphasis);
- Variances requested for regrading of slopes and reduction of highwall slope angles;
- Variance requested for reclamation of water-impounding structures.

Also included is BRI's reclamation cost estimate which is comprised of text for Section 9.0 of the MRP, Appendix 7 Reclamation Cost Estimate – Existing Disturbance, and Appendix 8 Reclamation Cost Estimate – Phase I Proposed Disturbances. In addition, to maintain consistency between the reclamation section (7.0) of the MRP and language used in the reclamation cost estimate, minor revisions were made to sections 4.5

Ancillary Facilities (p. 32 attached) and 7.2 Facilities Demolition and Disposal (p. 61 attached).

BRI has also reconsidered its position with regard to cultural resources inventories on its privately owned land and has modified MRP language in sections 3.10 Archeological and Paleontological Resources and 6.9.2 Archeological and Paleontological Resources, Proposed Conditions accordingly. This revised language is shown on attached pages 26 & 27 and 57 & 58, respectively. BRI believes that cultural resources inventories of private lands are not required under State law and that long-standing practices by numerous departments in Utah state government support this interpretation of Utah's statute dealing with protection of archeological and paleontological resources.

The geotechnical reports submitted in a separate binder with BRI's April 25, 2006 submittal were labeled as an appendix and referenced as such in the text of the MRP.

We have changed page 78 of the text to reference this binder as a "confidential document accompanying this plan;" that changed page is also attached. We ask the Division to cross out "Appendix 9" on the label of that binder so that it is consistent with the text.

Please note that, for the Division's convenience in reviewing this submittal, the attached changed and added pages are clipped together in the order that they are referenced in this letter.

Please contact either Mr. John Wagner of BRI or me with any questions you may have regarding this letter or the accompanying documents.

Sincerely,

Robert J. Bayer
Managing Principal

Cc: Alex Boulton, BRI
John Wagner, BRI

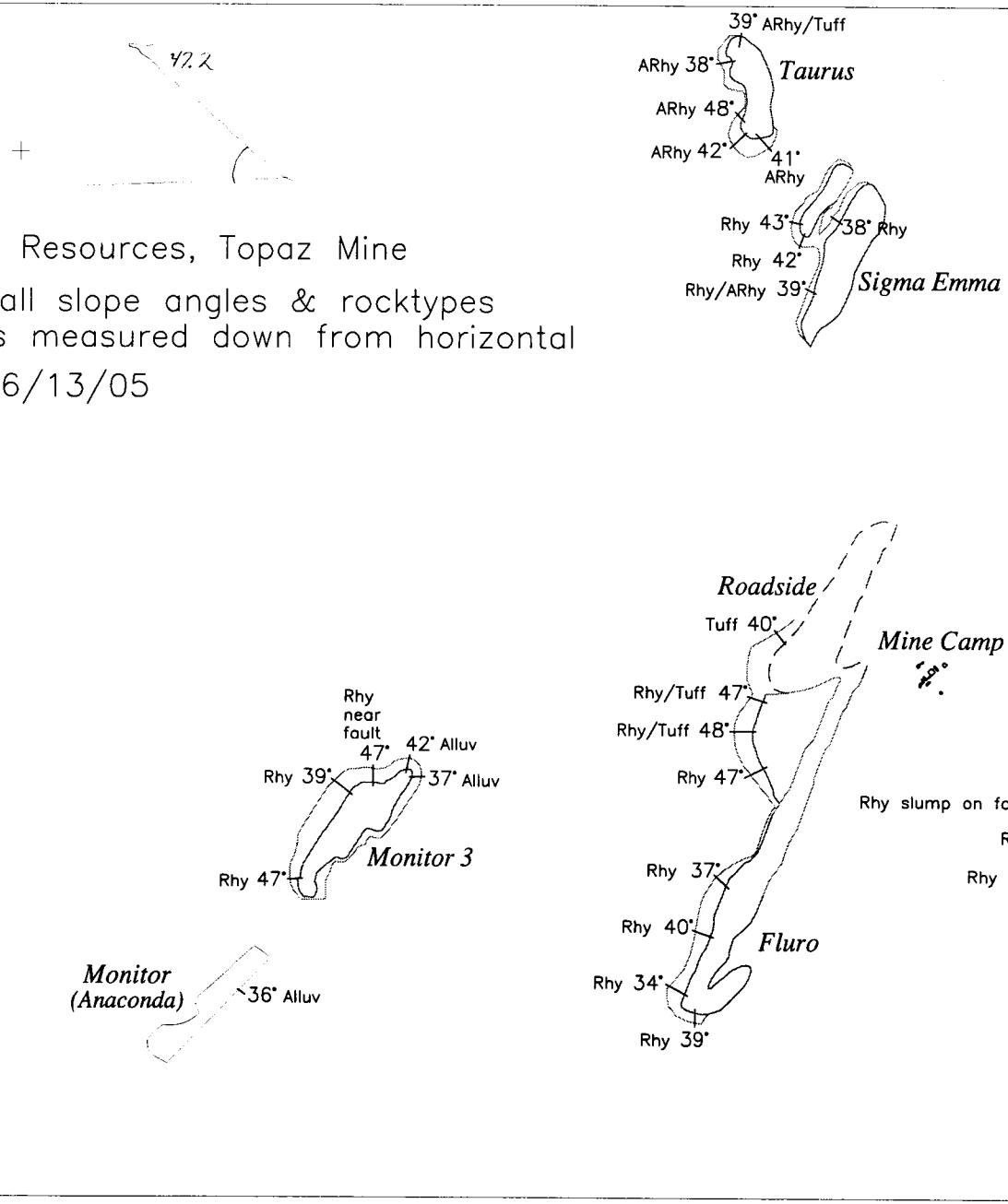
Attachment

Appendix 6
Slopes of Existing Open Pit Highwalls

Brush Resources, Topaz Mine

Highwall slope angles & rocktypes
Angles measured down from horizontal

JRW, 6/13/05



Open pit highwall overall slope angles

:Pit Name	Rocktype	Azimuth	Slope Distance	Slope Angle	Compliment	Remarks
Rainbow	Limestone	140	150	-47.2	42.8	NW highwall
Rainbow	Rhyolite	74	221	-46.4	43.6	WSW highwall
Rainbow	Rhyolite	42	217	-47.5	42.5	SW highwall slump
Rainbow	Rhyolite	110	169	-36.2	53.8	W slump on fault
					45.7	
Fluro	Rhyolite	0	96	-38.8	51.2	S highwall
Fluro	Rhyolite	119	216	-33.7	56.3	SW highwall
Fluro	Rhyolite	109	219	-39.8	50.2	W highwall
Fluro	Rhyolite	133	133	-36.9	53.1	NW highwall
					52.7	
Roadside/Fluro 3	Rhyolite	64	272	-47.4	42.6	SW highwall
Roadside/Fluro 4	Rhyolite/Tuff	90	269	-48.0	42.0	W highwall
Roadside/Fluro 5	Rhyolite/Tuff	109	228	-41.1	48.9	WNW highwall
Roadside 2	Tuff	142	171	-40.1	49.9	NW highwall
					45.9	
Monitor	Alluvium	194	166	-41.6	48.4	E wall fine grained sediments
Monitor	Alluvium	267	148	-37.4	52.6	N wall fine grained sediments
Monitor	Rhyolite	180	218	-47.1	42.9	N highwall near fault
Monitor	Rhyolite	128	241	-38.5	51.5	NW highwall
Monitor	Rhyolite	86	135	-47.4	42.6	SW highwall
					47.6	
Monitor (Anaconda)	Alluvium	314	69	-35.6	54.4	SE highwall
Sigma Emma	Rhyolite/Altered Rhyolite	116	95	-39.4	50.6	SW highwall
Sigma Emma	Rhyolite	125	130	-38.0	52.0	NW highwall
Sigma Little Pit	Rhyolite	102	176	-42.9	47.1	W highwall
Sigma Little Pit	Rhyolite	21	75	-41.7	48.3	S highwall
					50.5	
Taurus	Altered Rhyolite/Tuff	190	142	-39.3	50.7	N end highwall
Taurus	Altered Rhyolite	80	147	-37.6	52.4	N end W highwall
Taurus	Altered Rhyolite	135	135	-47.6	42.4	S end NW highwall
Taurus	Altered Rhyolite	318	199	-40.8	49.2	S end SE highwall
Taurus	Altered Rhyolite	48	179	-42.2	47.8	S end SW highwall
					48.5	
Blue Chalk North	Rhyolite	56	185	-40.5	49.5	S highwall w/ internal ramp
Blue Chalk North	Rhyolite	90	93	-48.9	41.1	W highwall at toe of ramp
Blue Chalk North	Rhyolite	153	165	-41.9	48.1	NW highwall
Blue Chalk South	Rhyolite	133	189	-52.4	37.6	NW highwall
45.7					44.1	
Section 16 North 1	Limestone	130	201	-52.8	37.2	W highwall on fault scarp
Section 16 North 1	Rhyolite/Tuff/Limestone	157	173	-54.2	35.8	NW highwall
Section 16 North 1	Rhyolite/Altered Rhyolite	61	173	-48.6	41.4	SW highwall
Section 16 North 1	Rhyolite	89	211	-49.3	40.7	W highwall near fault
					38.8	

30 measurements

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Note: Steepest portions of highwall were measured. Overall slope angle is generally slightly less.

Maximum Slope Angle	-54.2
Minimum Slope Angle	-33.7
Average Slope Angle	-43.1
Median Slope Angle	-41.7

created by John Wagner on 6/13/05

Sec. 16/Blue Chalk	126,339	14,575	-	10,119	-	-	420.0	151,032
Total	547,108	71,612	-	109,187	-	-	1841.5	727,908
Total - Ultimate Disturbance	794,477	200,085	-	113,495	-	-	2,476.2	1,108,058

5.6.7 Topsoil Stockpiles

During Phase I LMU development, topsoil will be stockpiled within or adjacent to the areas to be disturbed by development of each Phase I LMU. Topsoil stockpile locations are shown on Plates 6A to 10, the Reclamation Treatment Maps.

5.7 Runoff & Sediment Control Plan

The proposed runoff control plan for the property is as described in section 4.8 above. Water stored behind the waste rock dumps is known to infiltrate or evaporate quickly. Also, the coarse rhyolite rock comprising the proposed dumps is very porous. The alluvial channels and slopes behind these dumps are also quite permeable. In the event of minor erosions, the dumps will be routinely monitored and repaired as needed and set forth in the Company's Multi-Section General Permit for Storm Water Associated with Industrial Activities.

5.8 Public Access & Safety

The proposed public access and safety considerations will continue as described in Section 3.11 above.

5.9 Mining of the Proposed Initial LMUs

Using the mining methods described above, the eight initial LMUs listed in Table 5.1-1 will be mined during the initial mining period. The following brief narratives describe the reasoning behind selection of the waste rock dump sites, the dumping sequences and siting of access roads and stockpile locations.

The locations of the proposed LMUs are shown on Plates 5A and 5B. and the individual LMU components are described on the larger scale maps referenced in the following subsections. The descriptions of each LMU are presented in the currently anticipated order of development and production; however, the exact sequence may change as the result of economic considerations. The currently foreseen potential sequence

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Deleted: developments, topsoil will be stockpiled either within adjacent previously disturbed areas that have previously been released from reclamation liability or within the proposed Phase I disturbance limits (e.g., margins of ore stockpile pads). At the Southwind development (Plates 8A, 8B), the topsoil stockpile will be located within the disturbed area between the proposed open pit and the waste rock dump.
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engineer for the past 14 years. Mr. Knerr's used the results of Dr. McCarter's work and subsequent conferrals with Dr. McCarter to establish the criteria for defining pit slope angles for the proposed Phase I pits. As a result of Dr. McCarter's work and Mr. Knerr's application of that work to the pit design, the maximum slope angle for new open pits was reduced from up to 54 degrees to a maximum of 50 degrees (Plates 6A – 10).

Based upon BRI's past experience and the engineering studies done by Dr. McCarter, and its resultant modifications to highwall slope design, the future occurrence of larger slope instability problems, such as the rotational slope failures described above, is very unlikely. However, the LMU approach to mine planning and ore production further mitigates the potential for slope instability problems. Because the LMU approach calls for small increases in pit size at each phase of development, should unexpected problems with highwall slope stability occur, they will be correctable during mining operations. It is BRI's standard practice to observe slope stability as the initial pit benches are excavated and to make slight adjustments to interbench slopes and bench widths to accommodate local conditions.

Based upon the conservatively designed pit outslopes for the Phase I LMUs, the stability of the existing pit highwalls, BRI's understanding of highwall slope stability management, and the company's mine planning capabilities and experience, BRI believes that the stability of future pits has been demonstrated and the variance from the slope reduction requirement is therefore justified.

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8.3 Reclamation of Water-Impounding Structures

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Because deposits of relatively thick clay underlie the ore bodies, the open pits themselves impound precipitation-derived water. The pits shade the impounded water, reducing evaporation and enabling the water to remain in most pits year-round. For reasons explained above in Section 8.2, the open pits are mechanically stable. The small quantity of water that forms in the bottom of the pits offers no potential for adverse impacts to surface or ground water quality beneath of beyond the limits of the open pits. The pit safety berms, access ramp closures, and signage will provide adequate warning for protection of public safety. The pit impoundments provide water to local wildlife,

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- confirmation that seedbed preparation took place in accordance with Section 7.12;
- confirmation of the chemical and physical characteristics of soil replaced in each disturbed area and demonstration that the soils are not saline;
- confirmation that rainfall quantities have been recorded over the reclamation period by an on-site rain gauge;
- determination of the effect of salt uptake from underlying waste materials on soil quality (this may be done either visually, by observing the presence of either vegetation or salt staining, or by chemical analysis).

The effectiveness of revegetation efforts would be assessed in the first growing season following re-seeding. If it is determined that the replaced soils are not inhibiting growth by their placement (thickness, appropriate seedbed preparation) or due to their chemistry (not adversely saline) and relatively uniform germination of a diversity of plant types with multiple, adaptable perennial species that support the post mining land use occurs in the re-seeded area, no further revegetative work would be required at that time. Following a second successful year of vegetative growth or the passing of three years, whichever is less, the portion of surety held for revegetation of the reclaimed area would be released. Vegetative success would be assessed in the context of rainfall and revegetative progress compared to that experienced in the past.

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If revegetation is unsuccessful after the first growing season and the lack of revegetative success is due to insufficient rainfall, BRI would perform one supplemental seeding effort. This would involve re-seeding and possibly follow-up with the sheepsfoot compactor only; soils would not be re-ripped. The timing of this effort would be mutually agreed upon by the Division and BRI. In the event that the second seed application is unsuccessful and soil conditions remain acceptable, BRI's reclamation obligations would cease and the surety would be released.

If the soil placement and seedbed preparation is demonstrated not to have been done in accordance with the reclamation plan and/or the replaced soils were saline when placed or later became saline, BRI would be required to take additional steps to

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			life
Rainbow Pit 2 borrow, ore pad, ramps	21.6	Regrade, rip, topsoil, revegetate	Post Phase I
Blue Chalk North Pits	23.3	Variance from Rule **R647-4-111.7, 12, & 13** requested	Not scheduled
Blue Chalk South Pit	8.4	Variance from Rule **R647-4-111.7, 12, & 13** requested	Not scheduled
Section 16 North 1 Pit	25.7	Variance from Rule **R647-4-111.7, 12, & 13** requested	Not scheduled
Section 16 North 1 Dump	26.4	Rip/scarify, topsoil, revegetate	Post Phase I
Total Current Disturbed Area	195.7		

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As part of this revised MRP, BRI is seeking a variance for reclamation of the Blue Chalk North, Blue Chalk South, and Section 16 North No. 1 open pits. These pits must remain open, as they are today, to allow access to the Blue Chalk North and South and Section 16 ore bodies in the future. These open pits will be expanded in future phases of Topaz mine operations and backfill opportunities will be determined in future phase amendments.

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The surety amounts for the currently disturbed areas subject to reclamation have been calculated using the same methods used for new disturbances to be created in the initial LMUs in the first phase of mining proposed in this plan. In this way the allocation of existing surety, whether for disturbances that are bonded or for formerly proposed developments that have not yet begun, is not relevant. Rather, the existing surety amount would be adjusted as necessary to provide sufficient surety for the currently outstanding reclamation liability as well as the reclamation liability anticipated to be accrued during the development and mining of the Phase I LMUs.

The reclamation cost estimate for the existing disturbances is provided in Appendix 7 and the reclamation cost estimate for the proposed disturbances under the Phase I LMU is in Appendix 8.

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Note: The following subsections will be completed after the reclamation cost estimate for current liabilities and Phase I LMU development is prepared. This will be done after the Division has reviewed and approved the reclamation plans and variances requested in the MRP.¶

9.2 Methodology

This paragraph will describe how the Reclamation Plan Cost Estimate was accomplished. The estimate is comprised of five pages (or worksheets in MS Excel) and is provided in Appendix . The description below explains where data originated and

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This worksheet tabulates first the Equipment Hourly Rates, which include all the operating, ownership, and overhead costs extracted from the Cost Reference Guide, 2006. The Labor Hourly Rates were obtained from the General Decision UT20030009 (Davis-Bacon wage rates updated 6/16/06) with the base item including fringes. Finally, the Revegetation Seed Cost per Acre table was derived using the revegetation species and seed application rates in Table 7.11-1. The unit seed price was obtained from Granite Seed Company, Lehi, UT on 8/14/06.

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9.2.2 Equipment

This worksheet tabulates the calculated production rates for each of the unit operations (i.e. dump top rounding with a dozer, ripping with a dozer, seed setting with a dozer pulling the dimpler, and a scraper replacing topsoil). Dozing distance for the dump top rounding was assumed to be 70 feet per BRI. The average haul distance used for the scraper topsoil replacement productivity originated in the Quantities sheet to be explained in the next paragraph. All other factors on this worksheet were obtained from the Caterpillar Performance Handbook, 36th Edition, April 2006.

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9.2.3 Quantities

This worksheet lists and summarizes the applicable quantities needed for the ensuing cost calculations by subsection number (e.g., 9.3 Facilities Demolition, 9.4 Regrading and Recontouring, etc). BRI provided building dimensions and linear feet of dump margin for dump top rounding. All other quantities were listed in Section 7.0 or measured from the associated sets of drawings.

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9.2.4 Costs

This sheet details by paragraph how the costs are calculated. Generally the number of units (e.g., cubic yards, etc.), the productivity (e.g., cubic yards/ hr), the equipment and labor cost per hour are combined to determine the cost for a given item. In most cases, items used in this sheet are linked to the quantities, equipment, and rates sheets. When this was not the case, a reference was listed from Means Heavy Construction Cost Data, 2006 by line number; or the DOGM rate sheet. The most recent available DOGM rate sheet is dated April 18, 2005.

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this was not the case, a reference was listed from Means Heavy Construction Cost Data, 2006 by line number; or the DOGM rate sheet. The most recent available DOGM rate sheet is dated April 18, 2005.

9.2.5 Cost Summary

This sheet lists the total cost for each reclamation component which add up to the "Reclamation Total". The standard DOGM add-ons are then determined and listed, after which the "Grand Total" for the estimate is summed.

9.3 Facilities Demolition & Disposal

The plans for facilities demolition and disposal of the demolition debris are described in Section 7.2. The reclamation cost estimate for this component is included with the costs for existing disturbances in Appendix 7.

9.4 Regrading & Recontouring

Regrading and contouring of waste rock dumps and pit backfills, ancillary facilities sites (e.g., mine camp,), ore stockpile sites, and the landfill are discussed in Section 7.4.

9.5 Ripping

Ripping of roads is described in Section 7.3. Ripping of other hardened surfaces such as dump surfaces and ore stockpile sites is discussed in Section 7.4.

9.6 Drainage Stabilization & Restoration

Drainage and sediment control will not be required as part of Phase I reclamation. Refer to section 7.5 and also sections 3.6, 4.8, 5.7, and 6.4.

9.7 Soil Replacement

Topsoil replacement methods are described in section 7.7.

9.8 Seedbed Preparation

Seedbed preparation methods are also described in Section 7.8.

9.9 Revegetation

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Revegetation methods are described in Section 7.10.

9.10 Pit Highwall Safety Berms & Fences

Pit highwall safety berms are constructed prior to beginning mining of each open pit or pit expansion; therefore they are not reclamation costs. No fences are proposed as part of the reclamation plan.

9.11 Miscellaneous

Miscellaneous costs consist of mobilization and demobilization costs, which are included with the cost estimate for Phase I LMU reclamation (Appendix 8), and landfill reclamation costs, which are included in the Existing facilities reclamation cost (Appendix 7). For reclamation cost estimating purposes it has been assumed that a the existing and proposed disturbances would be carried out as part of a single operation; therefore, mobilization and demobilization costs would not be incurred separately for reclamation of existing and proposed disturbances.

9.12 Construction Supervision

Supervision of reclamation construction is estimated at 10 percent of the Reclamation Total cost for both existing and proposed disturbances.

9.13 Contingency and Escalation

A cost contingency factor of 10 percent of the sum of the Reclamation Total cost plus construction supervision was included with the cost estimates for both existing and proposed disturbances. A cost escalation factor of 1.6 percent per year, compounded annually for 5 years, was added to the cost estimates for reclamation of both existing and proposed disturbances.

9.14 Summary of Reclamation Costs

The reclamation cost estimates for existing and proposed Phase I LMU disturbances, including construction supervision, contingency, and escalation are $438,100 and $470,100, respectively.

Comment [BOB1]: Need to resolve section 7.10, which calls for reseeding with fixed-wind aircraft and reclamation cost worksheets which say the application method is with a dozer while dimpling.

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Appendix 7

Reclamation Cost Estimate - Existing Disturbance

RECLAMATION COST SUMMARY - EXISTING				Existing	Phase I
9.3	Facilities Demolition & Disposal			$ 66,491	$ -
9.4	Regrading & Recontouring			$ 3,457	$ 2,958
9.5	Ripping			$ 31,046	$ 31,889
9.6	Drainage Stabilization and Restoration	N/A			
9.7	Topsoil Replacement			$ 58,933	$ 53,681
9.8	Seedbed Preparation			$ 48,420	$ 106,785
9.9	Revegetation			$ 71,458	$ 157,592
9.10	Pit Highwall Safety Berms & Fences	N/A			
9.11	Miscellaneous - Land Fill Reclamation			$ 54,626	$ 6,000
9.12	**RECLAMATION TOTAL**			$ 334,432	$ 358,905
9.13	Reclamation Supervision(10% of Reclamation Total)			$ 33,443	$ 35,891
9.14	**SUBTOTAL (1)**			$ 367,876	$ 394,796
9.15	Contingency (10%)			$ 36,788	$ 39,480
9.16	**SUBTOTAL (2)**			$ 404,663	$ 434,275
9.17	Escalation (for 5 years at 1.6% per year)			$ 33,425	$ 35,871
9.18	**GRAND TOTAL**			**$ 438,088**	**$ 470,146**
	GRAND TOTAL ROUNDED			**$ 438,100**	**$ 470,100**

TOTAL RECLAMATION LIABILITY		
Existing	$	438,100
Phase I	$	470,100
TOTAL	**$**	**908,200**

9.3	**Facilities Demolition & Disposal**									
		Metal Structures								
				unit cost					Cost	
		volume(cuft)		($/cuft)						
		60720		0.26					15787	
				Means 2006 (02220-110-0012)						
		Frame and Tin Structures								
				unit cost						
		volume(cuft)		($/cuft)						
		48900		0.28					13692	
				Means 2006 (02220-110-0100)						
		Pads								
6"		area (sq ft)		$/sq ft						
		4134		5.60					23150	
				Means 2006 (02220-130-0420)						
4"		area (sq ft)		$/sq ft						
		2032		4.02					8169	
				Means 2006 (02220-130-0280)						
		Water Pipeline- 8" HDPE - 19,500 ft in length								
		Assume D9 with operator and 2 persons on the ground to pull lengths								
		to the landfill -- duration 18 hours								
					for one	for three				
				equip	labor	labor				
			total hrs	$/hr	$/hr	$/hr				
			18	154.89	37.76	113.27			4827	
		Remove lining material (1) water pond loadout (10,000 sq ft) and (2)								
		Fluro laydown pond (9300 sq ft). Assume two truck drivers and								
		a 8 cu yd dump truck -- duration 10 hours								
					for one	for two				
				equip	labor	labor				
			total hrs	$/hr	$/hr	$/hr				
			10	33.02	26.79	53.58			866	
					TOTAL FACILITIES AND DISPOSAL				66491	
9.4	**Regrading & Recontouring**									
		Dump Top Rounding								
					production		equip	labor		
		length (ft)	area(sq ft)	volume(cuyd)	lcy/hr	total hrs	$/hr	$/hr		
		12700	38	17874	996	17.9	154.89	37.76	3457	
			refer to Dump Top Rounding							
			schematic for area cross							
			section							
9.5	**Ripping**									
					production		equip	labor		
			area (ac)		acres/hr	total hrs	$/hr	$/hr		
			121.6		0.75	161.2	154.89	37.76	31046	
			NOTE: ALL RIPPING ASSUMED DEEP							
9.6	**Drainage Stabilization and Restoration**					N/A				

9.7	**Topsoil Replacement**									
		importing	volume		production		equip	labor		
		w/ scraper	(cuyd)		lcy/hr	total hrs	$/hr	$/hr		
			43399		163	267.0	162.50	26.79	50539	
		spreading	volume		production		equip	labor		
		by dozer	(cuyd)		lcy/hr	total hrs	$/hr	$/hr		
			43399		996	43.6	154.89	37.76	8394	
					TOTAL TOPSOIL REPLACEMENT				58933	
9.8	**Seedbed Preparation**									
					fertilizing	manure				
			area (ac)		$/ac	$/ac				
			107.6		100	350			48420	
					DOGM rate	DOGM rate				
9.9	**Revegetation**									
				application	seed cost					
	seed	area (ac)		$/ac	$/ac					
		107.6		240	192.00				46483.2	
				DOGM rate	quote					
					production		equip	labor		
	dimpling	area (ac)			ac/hr	total hrs	$/hr	$/hr		
		107.6			0.83	129.6	154.89	37.76	24975	
					TOTAL REVEGETATION				71458	
9.10	**Pit Highwall Safety Berms**									
		length (ft)		NOTE: Safety berms are installed during initial phase of						
		0		of mining of a given pit. Berm construction is an						
				operational cost and not a reclamation cost.						
				The safety berms are a MSHA requirement						
9.11	**Miscellaneous - Landfill Reclamation & Mob/Demob**									
			volume		production		equip	labor		
			(cuyd)		lcy/hr	total hrs	$/hr	$/hr		
	grading		6211		996	6.2	154.89	37.76	1201	
	waste rock		62113		308	201.8	162.50	26.79	38192	
	top soil		6211		163	38.2	162.50	26.79	7233	
				TOTAL LANDFILL RECLAMATION					46626	
	Equip Mob/Demob									
		D9 dozer		2000						
		631 scraper		2000						
		backhoe		2000						
		8 cu yd truck		2000						
				TOTAL MOB/DEMOB					8000	
				TOTAL MISCELLANEOUS					54626	

9.3	**Facilities Demolition & Disposal**							
	Metal structures							
		area(sqft)	height (ft)	volume(cuft)	foundation			
	Maint. Shop	2400	16	38400	concrete			
	Welding Shop	1152	10	11520	concrete			
	Sample storage	880	10	8800	concrete			
	Water Standpipe	100	20	2000				
		SUBTOTAL		60720	cu ft			
	Frame & tin structures							
	Shop addition	1078	14	15092	concrete			
	Pump house	160	8	1280	concrete			
	Prod. office	500	8	4000	blocks			
	Engr. Office	1012	8	8096	blocks			
	Lunch room	504	8	4032	blocks			
	Core shed #1	240	8	1920	blocks			
	Core shed #2	240	8	1920	blocks			
	Bunk house	672	8	5376	blocks			
	Guard qtrs	718	8	5744	blocks			
	Generator shed	180	8	1440	concrete			
		SUBTOTAL		48900	cu ft			
	Pads							
	6" depth pads			4" depth pads				
	Tank farm	1315		Welding shop	1152			
	generator pad	419		Sample bldg	880			
	Maint. Shop	2400						
	Total sqft 6"pads	4134		Total sqft 4"pads	2032			
9.4	**Regrading & Recontouring**							
	(I.e. Dump Top Rounding)							
		Pit	Dump	Linear feet				
	Property	Designation	Designation	to be rounded				
	Monitor			3000				
	Blue Chalk			5100				
	Section 16			4600				
	TOTAL LENGTH (FT) ROUNDING			12700				
9.5	**Ripping**							
	Shallow Surface Ripping (Topsoil Stockpiles)							
	Property			acres				
	TOTAL ACRES SHALLOW RIPPING			0				
	Deep Surface Ripping (Ore pads,roads,dumps, backfills mine camp)							
	Property	Ore pad(ac)	roads (ac)	dumps(ac)	backfills(ac)	other (ac)		
	Monitor ore pad			13.4				
	Monitor dump/			27.2				
	backfill							
	Dust Suppression			1.9				
	water assembly							
	Roadside 2			1.0				
	backfill							
	Roadside/Fluro 3			16.9				
	Mine Camp			8.6				
	Laydown area			4.6				
	Rainbow pit 2			21.6				
	ore pad, ramps							
	Blue Chalk/Sec 16			26.4				

	TOTAL	0	0	121.6	0	0			
	TOTAL ACRES DEEP RIPPING			121.6					
	TOTAL ACRES ALL RIPPING			121.6					
9.6	**Drainage Stabilization and Restoration**								
9.7	**Topsoil Replacement**								
			one way			one way		one way	
		Dump Backfill&	haul distance	Ore Stockpile		haul distance	Total	haul distance	Dump Backfill&
	Mine	outslope (yds)	(ft)	(ac)	(yds)	(ft)	(yds)	(ft)	outslope (ac)
	Monitor ore pad	5405	1200		0				
	Monitor dump/bkfl	10971	1200		0				
	Dust Suppression	766	1200						
	Roadside 2 bkfill	403	900						
	Roadside/Fluro 3	6816	900		0				
	Mine Camp	3469	2400						
	Laydown area	1855	2400						
	Rainbow pit 2	8712	2400						
	Blue Chalk/Sec 16	5001	6200						
	TOTALS	43399	1735	0	0		43399	1735	0
	NOTE: ALL HAUL DISTANCES ARE A WEIGHTED AVERAGE								
				Dump Backfill&		Ore pads			
	TOTAL ACRES TO BE REVEGETATED			outslope (ac)		stockpiles		TOTAL	
				107.6				107.6	
9.10	**Pit Highwall Safety Berms**								
			actual						
	Mine	in (map)	length (ft)						
	Total length Safety Berm		0						
9.11	**Miscellaneous - Landfill Reclamation**								
	Land fill = 7.7 acres								
	Item	area(ac)	height (ft)	volume (cu yd)					
	grading	7.7	0.5	6211					
	waste rock	7.7	5	62113					
	top soil	7.7	0.5	6211					
	Topsoil Requirements								
			Topsoil reqd						
	Area	acres	Cu Yds						
	Monitor ore pad	13.4	5405						
	Monitor dump/	27.2	10971						
	backfill								
	Dust Suppression	1.9	766						
	water assembly								
	Roadside 2	1.0	403						
	backfill								
	Roadside/Fluro 3	16.9	6816						
	Mine Camp	8.6	3469						
	Laydown area	4.6	1855						
	Rainbow pit 2	21.6	8712						
	ore pad, ramps								
	Sec 16 Dump	12.4	5001						
	Total	107.6	43399						

DOZING								
Dump Top Rounding & Topsoil Spreading			Ripping			Seed Setting with D-9 pulling Dimpler		
D-9	70' Push		D-9			D-9		
Production						Production		
Dozing distance	70		Ripper width (ft)	10.0		Dippler width (ft)	11.0	
Maximum production(lcy/hr)	1600		Ripper penetration (ft)	2		speed (mi/hr)	1.00	
			speed (mi/hr)	1.00				
Correction Factors								
Operator	0.75		Maximum production(ac/hr)	1.21		Maximum production(ac/hr)	1.33	
efficiency (50 min/hr)	0.83		Correction Factors			Correction Factors		
			Operator	0.75		Operator	0.75	
Total Correction Factor	0.623		efficiency (50 min/hr)	0.83		efficiency (50 min/hr)	0.83	
Corrected Production			Total Correction Factor	0.623		Total Correction Factor	0.623	
(lcy/hr)	996							
			Corrected Production	0.75		Corrected Production	0.83	
			(ac/hr)			(ac/hr)		

SCRAPERS			
Top Soil Replacement			
Cat 631			
Capacity (cu yd)		34	
Average Haul Distance		4500	
Cycle Time			
Loading time (min)		0.9	
Spreading time (min)		0.7	
Loaded Haul time (min)	4% grade	2.8	
Empty Haul time (min)	4% grade	1.9	
Cycle Time (min		6.3	
Cycles per Hour		9.6	
Production Rate (lcy/hr)		326	
Correction Factors			
Operator		0.75	
Job Efficiency(50 min/hr)		0.83	
Load Factor		0.8	
Total Correction Factor		0.50	
Corrected production rate(cy/hr)		163	

SCRAPERS			
Waste Rock Cap for Landfill			
Cat 631			
Capacity (cu yd)		34	
Average Haul Distance		1300	
Cycle Time			
Loading time (min)		0.9	
Spreading time (min)		0.7	
Loaded Haul time (min)	4% grade	1.0	
Empty Haul time (min)	4% grade	0.7	
Cycle Time (min		3.3	
Cycles per Hour		18	
Production Rate (lcy/hr)		618	
Correction Factors			
Operator		0.75	
Job Efficiency(50 min/hr)		0.83	
Load Factor		0.8	
Total Correction Factor		0.50	
Corrected production rate(cy/hr)		308	

Equipment Hourly Rates

Item	Total Hourly Cost
D9 Dozer	154.89
Cat 631 G Scraper	162.50
Cat 992G Loader	270.13
8 Cu Yd Dump Truck	33.02

Total Hourly Costs from Cost Reference Guide, 2006 and include ownership costs and Contractor profit

Labor Hourly Rates

Operator	Base	FICA 7.65%	Unemploy 3.00%	Wkmn Comp 12.30%	Total ($)
Scraper	21.79	1.67	0.65	2.68	26.79
Dozer	30.71	2.35	0.92	3.78	37.76
Loader	31.71	2.43	0.95	3.90	38.99
Haul Truck	21.79	1.67	0.65	2.68	26.79

Base labor rates are from General Decision UT20030015 (Davis-Bacon wage rates updated 6/16/06), and include "Fringe".

Revegetation Seed Cost per Acre

Species	lbs/acre	$/lb	$ per acre
crested wheatgrass	3.0	3.00	9.00
squirreltail	2.0	35.00	70.00
Indian Ricegrass	2.0	6.00	12.00
Yellow Sweetclover	0.5	2.00	1.00
Black Sage	0.1	100.00	10.00
Palmer's Penstemon	1.0	60.00	60.00
Four-wing Saltbrush	1.0	12.00	12.00
Shadscale	1.0	18.00	18.00
	10.6		192.00

Seed Costs from Granite Seed, Lehi, UT, (8/14/06)

Appendix 8

Reclamation Cost Estimate - Phase I Proposed Disturbances

RECLAMATION COST SUMMARY - PHASE 1		
9.3	Facilities Demolition & Disposal	0
9.4	Regrading & Recontouring	2958
9.5	Ripping	31889
9.6	Drainage Stabilization and Restoration	N/A
9.7	Topsoil Replacement	53681
9.8	Seedbed Preparation	106785
9.9	Revegetation	157592
9.10	Pit Highwall Safety Berms & Fences	N/A
9.11	Miscellaneous - Mobilization & Demobilization	6000
9.12	**RECLAMATION TOTAL**	358906
9.13	Reclamation Supervision(10% of Reclamation Total)	35891
9.14	**SUBTOTAL (1)**	394796
9.15	Contingency (10%)	39480
9.16	**SUBTOTAL (2)**	434276
9.17	Escalation (for 5 years at 1.6% per year)	35871
9.18	**GRAND TOTAL**	**$ 470,147**
	GRAND TOTAL ROUNDED	**$ 470,100**

9.3	**Facilities Demolition & Disposal**									
		Metal Structures								
				unit cost					Cost	
		volume(cuft)		($/cuft)						
		0		0.26					0	
				Means 2006 (02220-110-0012)						
		Frame and Tin Structures								
				unit cost						
		volume(cuft)		($/cuft)						
		0		0.28					0	
				Means 2006 (02220-110-0100)						
		Pads								
6"		area (sq ft)		$/sq ft						
		0		5.60					0	
				Means 2006 (02220-130-0420)						
4"		area (sq ft)		$/sq ft						
		0		4.02					0	
				Means 2006 (02220-130-0280)						
					TOTAL FACILITIES AND DISPOSAL				0	
9.4	**Regrading & Recontouring**									
		Dump Top Rounding								
					production		equip	labor		
		length (ft)	area(sq ft)	volume(cuyd)	lcy/hr	total hrs	$/hr	$/hr		
		10867	38	15294	996	15.4	154.89	37.76	2958	
			refer to Dump Top Rounding							
			schematic for area cross							
			section							
9.5	**Ripping**									
					production		equip	labor		
			area (ac)		acres/hr	total hrs	$/hr	$/hr		
			124.9		0.75	165.5	154.89	37.76	31889	
			NOTE: ALL RIPPING ASSUMED DEEP							
9.6	**Drainage Stabilization and Restoration**					N/A				
9.7	**Topsoil Replacement**									
		importing	volume		production		equip	labor		
		w/ scraper	(cuyd)		lcy/hr	total hrs	$/hr	$/hr		
			60806		275	221.5	162.50	26.79	41920	
		spreading	volume		production		equip	labor		
		by dozer	(cuyd)		lcy/hr	total hrs	$/hr	$/hr		
			60806		996	61.1	154.89	37.76	11761	
					TOTAL TOPSOIL REPLACEMENT				53681	
9.8	**Seedbed Preparation**									
					fertilizing	manure				
			area (ac)		$/ac	$/ac				
			237.3		100	350			106785	
					DOGM rate	DOGM rate				

9.9	**Revegetation**									
				application	seed cost					
	seed	area (ac)		$/ac	$/ac					
		237.3		240	192.00				102513.6	
				DOGM rate	quote					
					production		equip	labor		
	dimpling	area (ac)			ac/hr	total hrs	$/hr	$/hr		
		237.3			0.83	285.9	154.89	37.76	55079	
					TOTAL REVEGETATION				157592	
9.10	**Pit Highwall Safety Berms**									
		length (ft)		NOTE: Safety berms are installed during initial phase of						
		19650		of mining of a given pit. Berm construction is an						
				operational cost and not a reclamation cost.						
				The safety berms are a MSHA requirement						
9.11	**Miscellaneous - Mob/Demob**									
	Equip Mob/Demob									
		D9 dozer		2000						
		631 scraper		2000						
		backhoe		2000						
				TOTAL MOB/DEMOB					6000	
				TOTAL MISCELLANEOUS					6000	

9.3	**Facilities Demolition & Disposal**							
	Metal structures							
		area(sqft)	height (ft)	volume(cuft)	foundation			
	Maint. Shop	2400	16	38400	concrete			
	Welding Shop	1152	10	11520	concrete			
	Sample storage	880	10	8800	concrete			
		SUBTOTAL		0	cu ft			
	Frame & tin structures							
	Shop addition	1078	14	15092	concrete			
	Pump house	160	8	1280	concrete			
	Prod. office	500	8	4000	blocks			
	Engr. Office	1012	8	8096	blocks			
	Lunch room	504	8	4032	blocks			
	Core shed #1	240	8	1920	blocks			
	Core shed #2	240	8	1920	blocks			
	Bunk house	672	8	5376	blocks			
	Guard qtrs	718	8	5744	blocks			
	Generator shed	180	8	1440	concrete			
		SUBTOTAL		0	cu ft			
	Pads							
	6" depth pads			4" depth pads				
	Tank farm	1315		Welding shop	1152			
	generator pad	419		Sample bldg	880			
	Maint. Shop	2400						
	Total sqft 6"pads	0		Total sqft 4"pads	0			
9.4	**Regrading & Recontouring**							
	(I.e. Dump Top Rounding)							
		Pit	Dump	Linear feet				
	Property	Designation	Designation	to be rounded				
	Fluro	1	n/a	481				
	Fluro	2	n/a	296				
	Fluro	3	n/a	212				
	Rainbow	1	1	3495				
	Rainbow	1	2	559				
	Rainbow	2	2	1424				
	Rainbow	3	1	1211				
	South Wind			3189				
	TOTAL LENGTH (FT) ROUNDING			10867				
9.5	**Ripping**							
	Shallow Surface Ripping (Topsoil Stockpiles)							
	Property			acres				
	Fluro			0.2				
	Rainbow			0.6				
	South Wind			0.7				
	TOTAL ACRES SHALLOW RIPPING			1.5				
	Deep Surface Ripping (Ore pads,roads,dumps, backfills mine camp)							

	Property	Ore pad(ac)	roads (ac)	dumps(ac)	backfills(ac)	other (ac)		
	Fluro 1	7.5	5.4		6.1			
	Fluro 2				1.1			
	Fluro 3				2.3			
	Rainbow 1	12.6	9.8	14.6				
	Rainbow 2			7.6				
	Rainbow 3			29.7				
	South Wind	2.5	4.7	10.9				
	Mine Camp					8.6		
	TOTAL	22.6	19.9	62.8	9.5	8.6		
	TOTAL ACRES DEEP RIPPING			123.4				
	TOTAL ACRES ALL RIPPING			124.9				

9.6 Drainage Stabilization and Restoration

9.7 Topsoil Replacement

	Mine	Dump Backfill& outslope (yds)	one way haul distance (ft)	Ore Stockpile (ac)	(yds)	one way haul distance (ft)	Total (yds)	one way haul distance (ft)	Dump Backfill& outslope (ac)
	Fluro 1/2/3	16828	900	7.5	3025	5400			32.2
	Rainbow 1	8072	1650	12.6	5082	2700			16.8
	Rainbow 2	8266	2250						24.3
	Rainbow 3	9320	1650						21.7
	South Wind	9205	1050	2.5	1008	750			17.4
	TOTALS	51691	1395	22.6	9115	3380	60806	1693	112.4

NOTE: ALL HAUL DISTANCES ARE A WEIGHTED AVERAGE

TOTAL ACRES TO BE REVEGETATED	Dump Backfill& outslope (ac)		Ore pads stockpiles		TOTAL
	112.4		124.9		237.3

9.10 Pit Highwall Safety Berms

Mine	in (map)	actual length (ft)
Fluro 1/2/3	35	10500
Rainbow 1/2/3	22	6600
South Wind	8.5	2550
Total length Safety Berm		19650

9.11 Miscellaneous - Landfill Reclamation

Land fill = 17 acres

Item	area(ac)	height (ft)	volume (cu yd)
grading	7.7	0.5	6211
waste rock	7.7	5	62113
top soil	7.7	0.5	6211

DOZING								
Dump Top Rounding & Topsoil Spreading			Ripping			Seed Setting with D-9 pulling Dimpler		
D-9	70' Push		D-9			D-9		
Production						Production		
Dozing distance	70		Ripper width (ft)	10.0		Dippler width (ft)	11.0	
Maximum production(lcy/hr)	1600		Ripper penetration (ft)	2		speed (mi/hr)	1.00	
			speed (mi/hr)	1.00				
Correction Factors								
Operator	0.75		Maximum production(ac/hr)	1.21		Maximum production(ac/hr)	1.33	
efficiency (50 min/hr)	0.83		Correction Factors			Correction Factors		
			Operator	0.75		Operator	0.75	
Total Correction Factor	0.623		efficiency (50 min/hr)	0.83		efficiency (50 min/hr)	0.83	
Corrected Production			Total Correction Factor	0.623		Total Correction Factor	0.623	
(lcy/hr)	996							
			Corrected Production	0.75		Corrected Production	0.83	
			(ac/hr)			(ac/hr)		

SCRAPERS			
Top Soil Replacement			
Cat 631			
Capacity (cu yd)		34	
Average Haul Distance		1700	
Cycle Time			
Loading time (min)		0.9	
Spreading time (min)		0.7	
Loaded Haul time (min)	4% grade	1.3	
Empty Haul time (min)	4% grade	0.9	
Cycle Time (min		3.7	
Cycles per Hour		16.2	
Production Rate (lcy/hr)		551	
Correction Factors			
Operator		0.75	
Job Efficiency(50 min/hr)		0.83	
Load Factor		0.8	
Total Correction Factor		0.50	
Corrected production rate(cy/hr)		275	

SCRAPERS			
Waste Rock Cap for Landfill			
Cat 631			
Capacity (cu yd)		34	
Average Haul Distance		1300	
Cycle Time			
Loading time (min)		0.9	
Spreading time (min)		0.7	
Loaded Haul time (min)	4% grade	1.0	
Empty Haul time (min)	4% grade	0.7	
Cycle Time (min		3.3	
Cycles per Hour		18	
Production Rate (lcy/hr)		618	
Correction Factors			
Operator		0.75	
Job Efficiency(50 min/hr)		0.83	
Load Factor		0.8	
Total Correction Factor		0.50	
Corrected production rate(cy/hr)		308	

Equipment Hourly Rates

Item	Total Hourly Cost
D9 Dozer	154.89
Cat 631 G Scraper	162.50
Cat 992G Loader	270.13

Total Hourly Costs from Cost Reference Guide, 2006 and include ownership costs and Contractor profit

Labor Hourly Rates

Operator	Base	FICA 7.65%	Unemploy 3.00%	Wkmn Comp 12.30%	Total ($)
Scraper	21.79	1.67	0.65	2.68	26.79
Dozer	30.71	2.35	0.92	3.78	37.76
Loader	31.71	2.43	0.95	3.90	38.99
Haul Truck	21.79	1.67	0.65	2.68	26.79

Base labor rates are from General Decision UT20030015 (Davis-Bacon wage rates updated 6/16/06), and include "Fringe".

Revegetation Seed Cost per Acre

Species	lbs/acre	$/lb	$ per acre
crested wheatgrass	3.0	3.00	9.00
squirreltail	2.0	35.00	70.00
Indian Ricegrass	2.0	6.00	12.00
Yellow Sweetclover	0.5	2.00	1.00
Black Sage	0.1	100.00	10.00
Palmer's Penstemon	1.0	60.00	60.00
Four-wing Saltbrush	1.0	12.00	12.00
Shadscale	1.0	18.00	18.00
	10.6		192.00

Seed Costs from Granite Seed, Lehi, UT, (8/14/06)

4.4 Ore Stockpiles

Davis (1984) described the ore stockpile evaluation and management practices that have been used since that time:

> The ore is lifted from predetermined areas within the open pit and placed on a designed ore stockpile pad. During stockpile construction, care is taken to spread the ore into relatively thin and intermingling layers. This method creates a fairly homogeneous blend that is acceptable for mill feed.
>
> After the stockpile is constructed, its dimensions are surveyed. It is drilled and sampled for assaying with the laboratory Berylometer. Finally, a formal information report is assembled. The report includes the data and mapping needed to illustrate grade and moisture distribution throughout the stockpile as well productivity and ore recovery details. The stockpile is available for shipping on demand as ore feed to the company's Delta mill. Contractors transport the ore to the mill in trucks over a hard-surfaced road.

4.5 Ancillary Facilities

The ancillary facilities on the mine property are comprised of the mine camp, a contractor's camp, the road system, and the waterworks. The mine camp and existing roads are shown on Plates 4A and 4B.

The mine camp area is located primarily within the NE¼NE¼NE¼ of Section 8, in T13S, R12W. It consists of modular structures, metal and/or wood buildings, and a gasoline, diesel fuel and waste oil tank farm that is comprised entirely of aboveground storage tanks. The buildings and electrical generators are on concrete foundations and floors. Potable water is delivered to the mine by tanker and is stored in cisterns. There are no utility transmission lines in the mine vicinity.

There is a second camp area located mostly within the SE¼SW¼SE¼ of Section 8, T13S, R12W on the former Fluro dump. Known informally as the "Fluro laydown area," it has been utilized intermittently by earth-moving contractors during stripping operations as a location for setting up business trailers, fueling facilities, and equipment parking; it has a fuel containment liner and berm in place. A "Spill Prevention, Control, and Countermeasure Plan" (SPCC Plan) is in place at the mine, which complies with the appropriate regulations and provides adequate containment of petroleum products.

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and mobile equipment will be sold for reuse or for scrap. Under no circumstances will these types of equipment or related parts or components (e.g., tires) be disposed of in the on-site landfill or elsewhere on the mine property.

BRI operates a water supply well, water supply pipeline and dust-control-water storage pond. The well is located on state-owned land managed by SITLA; BRI has a surface use lease for this parcel. The well itself is an improvement to that property and per the lease is part of that property. BRI can only plug and abandon the well and restore the surface around the wellhead with the approval of SITLA. The pipeline is located on BLM-managed public land. BLM may wish to retain use of the pipeline after BRI ceases using it. In the event that either SITLA or BLM wish to retain the well or pipeline after BRI no longer uses it, BRI will provide necessary documentation to the Division, amend its MRP and reclamation cost estimate and notify the Division of a non-mining use for these facilities. If these agencies do not wish to retain these facilities, BRI will plug and abandon the well, reclaim the surface in the vicinity of the wellhead, and remove the water pipeline. Since the pipeline is located on the ground surface, it will be removed by pulling the pipeline to the vicinity of the storage pond, cutting it into appropriate lengths and dragging these pipe lengths to the on-site landfill where they will be cut into smaller lengths and placed in the landfill. No other reclamation activities are proposed for the pipeline corridor, which follows a pre-law, two-track road that is has been revegetated with volunteer native vegetation. The storage pond will be reclaimed by removing and salvaging the standpipe, emptying the pond of water, removing the liner and placing it in the on-site landfill, backfilling the pond with the surrounding berm material and applying the standard reclamation seed mix. No topsoil was present at the pond site when the pond was excavated; therefore, topsoil will not be placed at this site.

Deleted: and removing it from the site by truck

7.3 Roads

As described in Section 4.5, there will be two major categories of roads remaining on the property after completion of mining operations: roads constructed solely for the purpose of mining operations and those roads that were pre-existing county roads. Roads constructed for the purpose of supporting mining operations include waste rock

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area. Other wildlife species that may inhabit the mining properties include rabbits, coyotes, kit foxes, rodents, and a variety of birds and reptiles.

The nearby surrounding mountains provide abundant nesting sites for a variety of raptors. Although there are no known nesting sites within the mining properties, golden eagles, red-tailed hawks, kestrels, northern harriers, turkey vultures, and other raptors are likely to use the general area for hunting opportunities.

3.10 Archeological & Paleontological Resources

Archeological resources were described as follows in 1998 (JBR, 1998 - Cultural Resource Report 98-41):

> There are five cultural resource inventories previously completed on the mining properties. Two of these were performed by the BLM in 1984 and 1990. An inventory of 240 acres was conducted in 1996 and another inventory of 623 acres was completed in 1998.

A paleontological review was performed as part of an environmental assessment conducted in 1999 (EA No. J-010-099-042-EA, JBR, 1999) for Sections 9 and 16, T13S, R12W. According to this document, the Utah Geological Survey had no record of paleontological resources in the area.

As a result of the Utah West Desert Land Exchange of 2000 and a subsequent agreement between the Company and the Utah State Trust Lands Administration (TLA), the Company now owns all of the surface and most of the mineral rights for its Topaz Mining Properties. Some of the properties in which the Company acquired the surface estate in the land exchange are TLA Sections in which the minerals are owned and managed by TLA. A condition of the Certificate of Sale between the Company and TLA requires that the Company "... not commence or permit any additional surface disturbance with respect to the Subject Property [the TLA Sections] without a written determination from the Utah Division of State History and Purchaser (or DOGM if the proposed disturbance is subject to DOGM regulation) that no archeological or paleontological resources are present at the site of the proposed disturbance." Such a determination will require a cultural resources inventory by an archeologist permitted by the State Historic Preservation Officer (SHPO) and a paleontological literature search

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by an SHPO-approved paleontologist for any of the former state leases that have not been inventoried by the surveys completed in 1984, 1990, 1991, and 1996. Both the cultural resources and paleontological clearances would be the responsibility of the Company, which would retain the appropriately permitted specialists. Past cultural resource surveys covered the north half of Section 16, T13S, R12W; the other TLA Sections have not been surveyed.

BRI recognizes that in the event that cultural or paleontological resources are uncovered as part of its operations, BRI is required to immediately cease working in the area of the discovery and notify SHPO. SHPO would then determine the need for mitigation, which would be carried out prior to proceeding with operations in the vicinity of the discovery.

Deleted: As of the date of submittal of this MRP to the Division in 2005, there is some uncertainty regarding BRI's obligations to conduct cultural resources inventories on its private lands that were not formerly owned by TLA. Most of the areas to be disturbed in the initial phase of mining have been previously inventoried for cultural resources. BRI will commit to conduct any necessary supplemental cultural resources inventories on the previously un-inventoried lands that may be determined to be necessary prior to conducting its proposed mining disturbances. In addition, BRI's consultants will coordinate with the SHPO in determining the need for recording and or mitigation of any sites that may be encountered. In the event that it is determined to the satisfaction of the Division, SHPO, and BRI that, as a private land owner, BRI has no obligation to perform cultural resources inventories or site recordation, then BRI will consider the commitment to do so expressed above to be rescinded.¶
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3.11 Public Access and Safety

The Mining Properties are situated on private land. Unescorted public access is limited to through traffic on the county roads (see section 4.5, paragraph 4). Visitors to the mine are notified with signs to register at the mine camp when entering the mining properties. No unescorted access is granted in either existing or proposed mining areas. Livestock grazing is permitted at the company's discretion in undisturbed and revegetated areas in accordance with the terms and conditions of grazing permits issued by the Company. Surveillance personnel conduct regular patrols of the roads and mining areas to insure that visitors are not astray.

Safety is provided to the public in compliance with the Company's policies as well as Mine Safety and Health Administration (MSHA) rules. Open pits have 4-foot-high berms set 20 feet back from the pit crests to deter access to the highwall side of the pits. Mining area access roads are barricaded with earthen berms when not in use. Warning signs regarding operations are posted throughout the property in plain view of the county roads. During blasting operations, manned traffic control is placed on the roads and warning horns are sounded prior to any detonations.

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A review of the records of the State Paleontologist in the Utah Geological Survey in 1999 demonstrated that no paleontological resources were known to occur in the mine vicinity (JBR, 1999a).

6.9.2 Proposed Conditions

As discussed in section 3.10, the Company, in accordance with its agreement with the Utah TLA must obtain from the SHPO a written determination "that no archeological or paleontological resources are present at the site of the proposed disturbance" for those surface lands that were formerly owned by the State of Utah. In order for the SHPO to make such a determination, Class III archeological inventories must be completed by a state-permitted archeologist and the inventory reports approved by SHPO.

Like archeological resources assessments, a paleontological review is only required for former TLA surface lands. The Company will conduct a paleontological review and submit the findings of such reviews at the time that each future MRP amendment notice for disturbance of former state lands is proposed and submitted to the Division.

The TLA sections for which such inventories have not been completed are described in Section 3.10. The former federal lands that are now owned in fee by the Company were transferred directly from the United States to the Company by way of mineral patent. As a result these lands are no longer subject to the requirements of the NHPA and related statutes and regulations. Accordingly, no archeological or paleontological inventories need be performed in advance of disturbance on these fee lands.

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The areas to be disturbed by the first set of LMUs do not include the TLA sections and, therefore, do not require archeological inventories. Future mining of the Section 16, Sigma, and South Wind ore bodies will affect the TLA sections. The Company will see to it that the required SHPO determinations are obtained and filed with the appropriate MRP amendments when future LMU development is proposed. If mining or related cultural or paleontological resources are uncovered on the TLA lands, BWI would notify the TLA and SHPO and work in the area would halt until inspection by a professionally trained archeologist or paleontologist is conducted.

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BRI recognizes that in the event that cultural or paleontological resources are uncovered as part of its operations, BRI is required to immediately cease working in the area of the discovery and notify SHPO. SHPO would then determine the need for mitigation, which would be carried out prior to proceeding with operations in the vicinity of the discovery.

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6.10 Pubic Access & Safety

6.10.1 Current Conditions

The general mine area is currently accessible to the public via pre-existing county roads that traverse the property. Signs warning the public to stay on the public roads and warning of mining activities in the area are posted at the public access ways to the mine property. Signs also require any visitors to register at the mine office. No unescorted access is granted in either existing or proposed mining areas. Livestock grazing is permitted in undisturbed and revegetated areas in accordance with the terms and conditions of grazing permits issued by the company. Rockhounding and other recreational activities are not allowed on Company property.

The mine staff is onsite 10 hours per day Monday through Thursday beginning at 7:00 AM. During non-working hours, a watchman is on site at all times. The watch staff patrols the mine site during non-operating hours and by the mine staff during normal working hours. Patrols cover both the roads and mining areas to insure that visitors are not astray. Any evidence of off road travel or other trespass (e.g., fresh vehicle tracks, etc.) is investigated when it is identified. In the event of blasting operations, manned traffic control is placed on the roads and warning horns are sounded prior to any detonations.

The mine office is equipped with telecommunications and company vehicles are equipped with radios, in the event that emergency assistance is required and must be called.

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been that slope failures, other than rockfalls, are confined to intrabench failures except in instances where pit walls closely parallel major faults. When pit walls approach the planes of relatively steeply dipping major normal faults tangentially, the mass of rock between the pit wall and the fault plane can become unstable and subject to relatively slow rotational failure. Two such failures have occurred in the past and have now been permanently stabilized by mining the additional waste rock generated by the slump in one case and by ceasing operations in the part of the pit impacted by the slump in the other case. Since these slope failures, BRI has advanced its mine planning capability and conducted pit slope stability studies that have been used in design of the Phase I LMU pits. All deposits have been thoroughly assessed through drilling and all faults have been identified. Mine planning for the Phase I LMUs has taken into account the risks of pit wall/fault plane failures. Pits have been designed to avoid leaving waste between pit walls and fault planes. This is normally accomplished by designing the pit wall adjacent to major faults to cross the fault plane. As a result, the portion of the pit wall above the fault plane is comprised entirely of the rocks on the footwall side of the fault and is not subject to fault-related highwall failure. That part of the pit wall in the hanging wall of the fault has much less mass and is lower in height than footwall-located highwalls with which past failures have been associated. As a result, rotational failures no longer occur.

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The slopes for existing pit highwalls are summarized on a table and map in Appendix 6.

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These data show that of eight existing open pits, four have slopes of 45 degrees or less and the other four have average highwall slopes ranging from 47 to 53 degrees.

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BRI retained Dr. Kim McCarter, a professional engineer and head of the University of Utah Mining Engineering Department to conduct selected evaluations of pit wall stability. A **confidential** document accompanying this plan and bound separately, contains reports by Dr. McCarter on pit slope stability design considerations for the Fluro and Rainbow open pits and a cover memorandum prepared by Mr. Robert Bayer, P.G., that introduces these reports and summarizes their findings. The pit slopes for the Phase I LMU pits were designed by Mr. Kim Knerr, the consulting professional mining engineer whose specialty is geological engineering and open pit design who has served

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